

OWNER'S MANUAL

UNIVERSE PLUS GAS SKILLET

MODELS:

○ 30P-STGL ○ 30P-STGM ○ 40P-STGL ○ 40P-STGM

WARNING:

Improper installation, adjustment, alteration, service or maintenance can cause damage, injury or death. Read the installation, operating & maintenance instructions thoroughly before installing or servicing the equipment.

FOR YOUR SAFETY:

Do not store or use gasoline or other flammable vapors or liquids in the vicinity of this or any other appliance.



CAUTION:

Instruction to be followed in the event the user smells gas shall be posted in a prominent location. This information shall be obtained by consulting the local gas supplier.



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INTRODUCTION

NOTICE:

THE FOLLOWING FAUCETS ARE THE ONLY ONES APPROVED BY THE MASSACHUSETTS BOARD OF REGISTRATION OF PLUMBERS AND GAS FITTERS FOR INSTALLATION ON THIS EQUIPMENT.

SINGLE PANTRY FAUCET MANUFACTURED BY T & S BRASS AND BRONZE WORKS, INC. MODEL # B-0305 OR CONCEALED MIXING FAUCET WITH 4-ARM HANDLES MANUFACTURED BY T & S BRASS AND BRONZE WORKS, INC. MODEL # B-0512.

IMPORTANT:

- **INSTALLING, OPERATING AND SERVICE PERSONNEL:**
- **INSTALLATION OF THE EQUIPMENT SHOULD BE PERFORMED BY QUALIFIED, CERTIFIED, LICENSED AND/OR AUTHORIZED PERSONNEL WHO ARE FAMILIAR WITH AND EXPERIENCED IN STATE/LOCAL INSTALLATION CODES.**
- **OPERATION OF THE EQUIPMENT SHOULD BE PERFORMED BY QUALIFIED OR AUTHORIZED PERSONNEL WHO HAVE READ THIS MANUAL AND ARE FAMILIAR WITH THE FUNCTIONS OF THE EQUIPMENT.**
- **SERVICE OF THE EQUIPMENT SHOULD BE PERFORMED BY AN AUTHORIZED MARKET FORGE SERVICE AGENT.**

SHIPPING DAMAGE CLAIM PROCEDURE:

THE EQUIPMENT IS INSPECTED & CRAFTED CAREFULLY BY SKILLED PERSONNEL BEFORE LEAVING THE FACTORY. THE TRANSPORTATION COMPANY ASSUMES FULL RESPONSIBILITY FOR SAFE DELIVERY UPON ACCEPTANCE OF THIS EQUIPMENT.

IF SHIPMENT ARRIVES DAMAGED:

- 1. VISIBLE LOSS OR DAMAGE: NOTE ON FREIGHT BILL OR EXPRESS DELIVERY AND HAVE SIGNED BY THE PERSON MAKING DELIVERY.**
- 2. FILE CLAIM OR DAMAGES IMMEDIATELY REGARDLESS OF THE EXTENT OF DAMAGES.**
- 3. CONCEALED LOSS OR DAMAGE: IF DAMAGE IS NOTICED AFTER UNPACKING, NOTIFY THE TRANSPORTATION COMPANY IMMEDIATELY AND FILE 'CONCEALED DAMAGE' CLAIM WITH THEM. THIS SHOULD BE DONE WITHIN FIFTEEN DAYS FROM THE DATE DELIVERY IS MADE TO YOU. RETAIN CONTAINER FOR INSPECTION. IDENTIFY IMMEDIATELY**

MODELS:

- 30P-STGL • 40P-STGL
- 30P-STGM • 40P-STGM

DESCRIPTION:

The Market Forge Gas Universe Plus Tilting Skillets are available in 30-gallon (87-liter) and 40-gallon (114-liter) pan bodies with 93,000 BTU and 126,000 BTU inputs respectively. Both models are available in open-leg and closed-base frame assemblies with manual or power tilt capabilities.

The heavy duty construction of our Universe Plus Skillets incorporates sides formed of 10 gauge stainless steel and a 5/8" thick stainless steel clad plate that will provide a rigid flat cooking surface with improved heat distribution. The balanced design of the pan allows the operator to easily and quickly tilt to the desired position. Our new power tilt operates smoothly, with manual override that works easily when needed and without the use of tools or drills as required by other manufacturers.

CONSTRUCTION:

The Universe Plus Skillet has a fully polished stainless steel cooking surface that prevents food from adhering and helps to safely clean the equipment. Gas burners turn off automatically when the cooking pan is tilted from the horizontal position. The skillet is provided with a heavy-duty spring assisted cover and a condensate vent. The cooking pan and cover are supported by two consoles with a fully welded stainless steel tubular frame system that provides stable support to the unit.

The consoles are completely covered with stainless steel that provides protection to the controls and is also easily cleanable and provides clear access for easy floor cleaning. The closed-base model incorporates an easily removable stainless steel front panel. The sloped front of the pan allows for complete draining of the pan when tilted to 70°. The tilting mechanism includes a precision ground and polished worm for smooth and long lasting tilt operation and positive control with a collapsible hand crank. A power tilting option is available and is also supplied with the collapsible handle for manual override operation if required.

TECHNICAL SPECIFICATIONS:

COOKING PAN:

The unitized cooking pan with integral clad plate cooking surface is welded with full penetration to resist cracking due to expansion and contraction. The polished cooking surface resists product adherence and improves cleanup and appearance. The pan incorporates an easy-pour lip and 5-gallon increment markings. The clad plate cooking surface has integrally welded labyrinth fins for positive control and heat transfer from the reliable atmospheric



30P-STGL Shown

burners. An interlock switch is provided to turn the burners off when the pan is tilted more than 10° from the normal horizontal position. The spring assisted cover with integral vent, condensate drip guide and full width handle affords effortless operation and will maintain an open position.

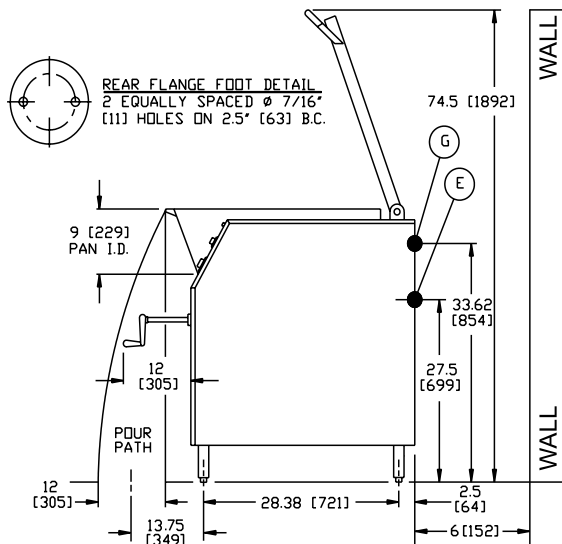
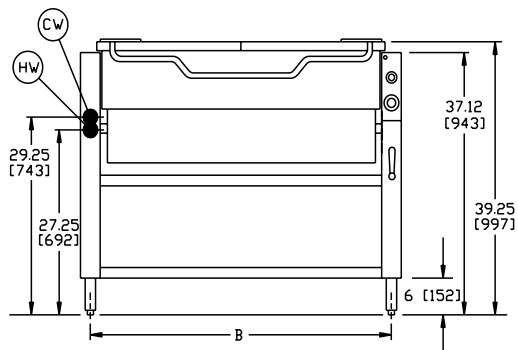
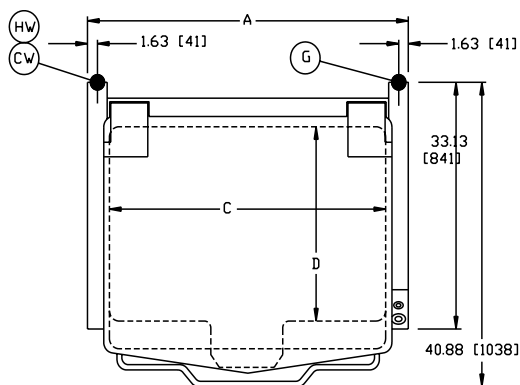
CONTROLS:

The skillet comes standard with a solid-state temperature control with a positive OFF position and 100°-450° Fahrenheit scale, a pilot light to indicate when the burners are ON, spark pilot ignition system as standard and a 1 hour mechanical timer is included. The optional power tilting mechanism also utilizes an UP/DOWN rocker switch. The manual tilting mechanism uses a collapsible hand crank conveniently located below the control panel. The controls are resistant to dripping and light splashing water (NEMA T-2).

OPERATION SHALL BE BY:

The Universe Tilting Plus Skillets models 30P-STGL and 30P-STGM' will be rated at 93,000 BTU at 3.5" W.C. natural gas and 10" W.C. propane gas.

Models 40P-STGL and 40P-STGM will be rated at 126,000 BTU at 3.5" W.C. natural gas and 10" W.C. propane gas.



DIMENSIONS

| MODEL | CAPACITY | | A | B | C | D |
|----------|-----------|--------|------|-------|------|-------|
| 30P-STGL | 30 Gallon | inches | 36 | 34.63 | 30.5 | 25.75 |
| 30P-STGM | 114 liter | mm | 914 | 879 | 775 | 654 |
| 40P-STGL | 40 Gallon | inches | 46 | 44.63 | 40.5 | 25.75 |
| 40P-STGM | 152 liter | mm | 1168 | 1133 | 1029 | 654 |

SERVICE CONNECTIONS

Gas Fired

| | |
|----|--|
| G | Gas Connection - Supplied through 3/4" NPT pipe. A gas shut-off valve must be installed in supply piping convenient and adjacent to appliance. |
| E | Electrical Connection - 120V units supplied with 8' foot cord with 3 prong plug. |
| CW | Cold Water - 3/8" O.D. NPT to faucet (Optional). |
| HW | Hot Water - 3/8" O.D. NPT to faucet (Optional). |

OPTIONAL AT EXTRA COST:

- 2" Draw-Off Valve with Strainer.
- Modular Joining Kit.
- Pan Support.
- Pan Holder Inserts.
- Pouring Lip Strainer.
- Single Pantry Faucet.
- Posi-Set.
- 2" Tangent Draw-Off Valve with Drain Hose Assembly, Includes:
 - 2" Tangent Draw-Off Valve with Strainer.
 - 90° Stainless Steel Elbow.
 - 8 Foot Long of 2" ID Hose (cut to required length).
 - Hose Clamp.
- Drain Cup Assembly, Includes:
 - Stainless Steel Cup Assembly.
 - 8 Foot Long of 2" ID Hose (cut to required length).
 - Hose Clamp.
- Drain Pan Assembly, Includes:
 - 6" x 12" x 20" Stainless Steel Solid Pan with Elbow.
 - 8 Foot Long of 2" ID Hose (cut to required length).
 - Hose Clamp.
- Double Pantry Faucet.
- Single Pantry Spray Hose.
- Double Pantry Spray Hose.
- Caster Kit w/Strain Relief.
- Correctional Package.

MANIFOLD GAS PRESSURE AND INPUTS:

| | W.C. | 30 Gallon BTU | 40 Gallon BTU |
|-----------------------|------|------------------|------------------|
| • Natural Spark Pilot | 3.5" | 93,000 | 126,000 |
| • Propane Spark Pilot | 10" | 93,000 | 126,000 |

NOTE: HIGH ALTITUDE - If equipment is to be installed above 2,000 feet specify installation height, so that proper gas orifices can be provided.

| CLEARANCE: | 30 GALLON 93,000 BTU | 40 GALLON 126,000 BTU |
|--------------|-------------------------|--------------------------|
| ◦ Left Side | 0" | 0" |
| ◦ Right Side | 0" | 0" |
| ◦ Back | 6" | 6" |

INSTALLATION

CAUTION: BE SURE TO READ!

- ▶ Keep this appliance area free and clear of combustibles.
- ▶ Do not obstruct the flow of combustion and ventilation air.
- ▶ Allow adequate ventilation to unit. Install under exhaust hood.
- ▶ Keep this manual for future reference.
- ▶ This installation must conform with local codes, or in the absence of local codes, with the National Fuel Gas Code, ANSI Z223.1/NFPA 54, or the Natural Gas and Propane Installation Code, CSA B 149.1, as applicable.
- ▶ The appliance and its individual shut off valve must be disconnected from the gas supply piping system during any pressure testing of that system at pressures in excess of 1/2 PSI (0.035 kg/cm²).
- ▶ The appliance must be isolated from the gas supply piping system by closing its individual manual shut off valve during any pressure testing of the gas supply piping system at test pressures equal to or less than 1/2 PSI (0.035 kg/cm²).
- ▶ This unit is serviceable from the front. Do not install in such a manner that a service person cannot remove front panels if provided.
- ▶ Electrical grounding must be provided in accordance with local codes, or in the absence of local codes, with the National Electrical Code, ANSI/NFPA 70, or the Canadian Electrical Code, CSA C22.2, as applicable.
- ▶ In Canada, this installation must conform to C.S.A. Standard C22.1 Canadian Electrical Code, Part 1.
- ▶ The wiring diagram adhesive label is located on the inside of the control box cover.
- ▶ The product must be installed in a room with adequate air supply for complete gas combustion.
- ▶ Do not place on or directly against the unit any objects that would block air openings into the combustion chamber.
- ▶ Suitable for use on combustible floors.
- ▶ Clearances from both combustible and non-combustible construction are 0" from side walls, 10" (254mm) from rear wall.
- ▶ This unit has a flexible cord wired into electrical system.

GENERAL INSTALLATION:

1. Remove carton from skid, being careful not to dent or scratch finished surface of the unit.
2. Inspect unit carefully for shipping damage. File claim with

carrier immediately if damage is found.

3. Remove screws holding unit to skid.
 4. Transfer unit to desired position and make level and steady by adjusting feet to compensate for floor irregularities. Bolt the flange feet to the floor.
 5. Raise skillet cover to full open position. Raise skillet by turning crank clockwise. Check to make sure burners and carryover tube are in position and securely seated.
 6. Lower skillet by turning hand crank counterclockwise until fully seated on frame. Skillet is equipped with interlock switch, which does not permit burners to ignite until skillet is lowered to less than 10° off normal horizontal cooking position.
 7. Gas service conditions:
 - a. This unit is factory-adjusted for gas consumption of 93,000 BTU/Hour (on 30 Gallon units) or 126,000 BTU/Hour (on 40 Gallon units) at the pressure indicated. Please read rating plate on top of control box. If this plate is marked for a different gas than that supplied, notify your dealer immediately.
- DO NOT CONNECT GAS LINES. Only qualified installer or service person should make the installation.**
- b. Use new 3/4 I.P.S. iron or steel pipe complying with ANSI Standard for wrought-steel and wrought-iron.

Pipe B36- latest edition, properly threaded, reamed and free from chips, oil and dirt.

If pipe dope is used, apply a moderate amount, leaving two end threads bare. Gas connection is on the rear of the right console. Pipe in a gas shut-off valve accessible to the operator.

- c. Natural gas units are equipped with a pressure regulator factory-adjusted to give 3.5" (89mm) water column manifold pressure. The supply pressure must be at least 7" (178mm) water column pressure.
 - d. Propane gas units are equipped with a pressure regulator factory-adjusted to give 10" (254mm) water column manifold pressure. The supply pressure must be at least 11" (279mm) water column pressure.
 - e. Maximum supply pressure must not exceed 1/2 PSI (.035 kg/cm²) for both natural and propane gas.
 - f. Perform a gas leak test of all newly-made joints, as well as those leading to the main gas control valve pilot burner, using a soap solution. **DO NOT USE FLAME!**
8. Electrical service connection - Connect skillet controls to 110/120 volt AC, 60 Hz, 1 pH (phase) branch circuit rated 15 Amps capacity. Wiring will conform to the requirements of national and local electrical codes. **ONLY A LICENSED ELECTRICIAN SHOULD MAKE ELECTRICAL CONNECTIONS!**

CASTER INSTALLATION:

Adequate means must be provided to limit the movement of the appliance without depending on the connector and quick disconnect device or its associated piping to limit the appliances movement.

The location (s) where the restraining means may be attached to the appliance shall be approximately 3" below the gas inlet on the rear of the right hand console.

INSTALLATION

BEFORE FIRST USE:

Using a non-corrosive, grease-dissolving commercial cleaner, clean the protective metal oils from all surface parts and the interior of the tilting braising pan (follow the cleaning instructions in the maintenance section of this manual) and wipe dry with a soft clean cloth.

START-UP PROCEDURE:

1. Open manual gas shut-off valve.
2. Ensure that the braising pan is in the DOWN position.
3. Turn the THERMOSTAT dial to desired setting. The RED TEMPERATURE LIGHT will come on. This will turn on the electronic ignition on, which will light the burners.
4. If the burners do not come on after 30 seconds, turn the THERMOSTAT dial to OFF and then ON again to restart.
5. When braising pan has reached set temperature, the RED TEMPERATURE LIGHT will go OFF and the burners will shut OFF. The RED TEMPERATURE LIGHT will blink ON and OFF thereafter when the burners are OFF letting the

operator know that the burners are cycling to maintain temperature.

6. If gas supply is interrupted during operation, turn the THERMOSTAT dial to OFF position and turn the gas supply OFF. Wait five minutes, then repeat steps 1 through 4 to restart.
7. Turn the THERMOSTAT dial to OFF when braising pan is not in use.

SHUTDOWN INSTRUCTIONS:

Turn the THERMOSTAT dial counterclockwise to the OFF position.

PROLONGED SHUTDOWN:

1. Turn the THERMOSTAT dial counterclockwise to the OFF position.
2. Turn the GAS VALVE located at the right rear to the OFF position.

OPERATION

BEFORE FIRST USE:

1. Check to see that the correct gas connection has been made to the unit (110/120 volt connection).
2. Be sure skillet has been or is cleaned before using.
3. Be certain skillet is lowered to the normal horizontal cooking position so burners will light.
4. Set the thermostat to the desired temperature. See Test Kitchen Bulletin Section for thermostat settings.
5. Preheat to desired setting before grilling, pan frying, or any other type of cooking except boiling.
6. Cover should be up for most types of cooking, except simmering or boiling. The cover has a lip at the rear that will direct condensate into the skillet rather than onto the cabinet base.
7. When food is cooked, it should be immediately removed from skillet to prevent overcooking.
8. To lower skillet, merely turn tilt skillet hand crank counterclockwise. To raise skillet, turn hand crank clockwise.

9. For cleaning instructions, See Trouble-Shooting and Maintenance Section.

CAUTION: BE SURE TO READ:

- Disconnect the power supply to skillet before cleaning or servicing.
- If the skillet pan is difficult to raise, the lift gears may need to be lubricated. The gears are located on the right side under the control box. Apply a liberal amount of grease along the helical thread of the worm where it engages the worm gear. Use multi-purpose, NLGI #2 lithium-based, water-resistant grease.
- Periodically examine the flue outlet located behind the skillet cover for any obstructions.
- Appliances with casters are always to be restrained from movement. If removal of the restraint is necessary, always reconnect the restraint when the unit is returned to its originally installed position.

TEST KITCHEN BULLETIN

COOKING FACTS ON PARADE:

1. The Universe Plus Skillet is one of the most versatile pieces of equipment to be found in any restaurant or institution kitchen.
2. This unit will stew, simmer, pan-fry, braise, grill and saute all with very uniform heat pattern.
NOTE: DO NOT ATTEMPT TO DEEP FRY WITH YOUR SKILLET!
3. For best results, the tilting skillet should always be preheated and allowed to cycle once.
4. A great deal of heavy lifting and transferring foods from one pan to another can be eliminated and therefore pot washing will be reduced.
5. This type of equipment usually reduces the total cooking time by as much as 25% on combination dishes.
6. Sauces usually lose less moisture as the cover reduces evaporation.
7. Large batches of gourmet items can be prepared with less work and with more uniform results.
8. Frozen vegetables can be cooked in the universe skillet in the serving pan, then removed and transferred directly to the serving line.
9. The following temperatures should be used:

| | |
|----------------|------------------|
| Simmering | Maximum of 200°F |
| Sauteing | 225-275°F |
| Searing | 300-350°F |
| Shallow Frying | 325-375°F |
| Grilling | 350-425°F |
10. Temperatures of approximately 200°F should always be used for milk-based products, or scorching will take place. Lower temperatures to 150-175°F to prevent thickening.
11. Some items should be started at a high temperature and then reduced. This permits sealing for about 20% of the time and cooking for the remaining 80%.
12. The cover has a lip at the back edge that directs the condensate on the cover back into the skillet.
13. The unit tilts easily to 90°, and receiving pan is always approximately 2 inches from the pouring lip of the skillet.
14. The stainless steel UniVerse Plus Skillet is rapidly cleaned with a mild detergent. Water, waste, and scraps are easily removed into the receiving pan for disposal. (It is always recommended that this type of unit be presoaked if possible.).
15. Breakfast foods such as sausage, bacon, pancakes, fried eggs, scrambled eggs, and French toast are a few of the more common items that can be cooked in the Universe Plus Skillet.
16. When cooking meat or poultry, all pieces should be of fairly uniform size and weight and should be turned at least once while simmering.
17. This unit can be converted to a proof box by placing a small amount of water in the pan to form steam and then placing the food in another pan. The thermostat should be set very low (100 - 150°F).
18. The unit can also be used as a holding cabinet by adding water and setting the thermostat at approximately 175°F.
19. When using water over and over for vegetable cooking, be sure to add water occasionally to keep level at about 3 - 4 inches. Thermostat should be set at 250°F.
20. Perforated 2 1/2" - deep pans are suggested for vegetables for the most satisfactory results. The pan can then be removed

TEST KITCHEN BULLETIN

| ITEM | PORTION SIZE | THERMOSTAT SETTING | BATCHES PER HOUR | 30 Gallon PER LOAD | | 40 Gallon PER LOAD | |
|---------------------------|-----------------|-----------------------|------------------------|-----------------------|-------|-----------------------|-------|
| | | | | QTY. | YIELD | QTY. | YIELD |
| BREAKFAST FOODS | | | | | | | |
| Bacon | 3 Slices | 350 ° | 12 | 2 lbs. | 10 | 3 lbs. | 15 |
| Eggs | 1 Egg | | | | | | |
| Boiled-Hard | 1 Egg | 225 ° | 5 | 50 | 50 | 75 | 75 |
| Boiled-Soft | 1 Egg | 225 ° | 8 | 50 | 50 | 75 | 75 |
| Fried | 1 Egg | 400 ° | 4 | 30 | 30 | 45 | 45 |
| Poached | 1 Egg | 225 ° | 5 | 36 | 36 | 60 | 60 |
| Scrambled | 1 1/2 Eggs | 300 ° 200 ° | 1 | 18 gal. | 720 | 28 gal. | 1100 |
| French Toast | 3 Slices | 450 ° | 7 | 35 Slices | 12 | 50 Slices | 17 |
| Regular Oatmeal | 1/2 Cup | 250 ° | 2 | 20 lbs. | 500 | 40 lbs. | 1000 |
| Pancakes | 2 Each | 400 ° | 10 | 30 each | 15 | 50 each | 25 |
| FISH | | | | | | | |
| Clams | 1 pt. | 400 ° | 10 | 10 qts. | 20 | 15 qts. | 30 |
| Fish Cakes | 2 oz. | 400 ° | 5 | 70-3 oz. | 35 | 110-3 oz. | 55 |
| Haddock Filet | 4 oz. | 400 ° | 4 | 60-4 oz. | 60 | 90-4 oz. | 90 |
| Halibut Steak | 5 oz. | 450 ° | 3 | 60-4 oz. | 60 | 90-4 oz. | 90 |
| Lobster | 1-1 lb. | 350 ° | 4 | 20-1 lb. | 20 | 30-1 lb. | 30 |
| Swordfish | 5 oz. | 450 ° | 3 | 50-5 oz. | 50 | 75-5 oz. | 75 |
| SAUCES, GRAVIES AND SOUPS | | | | | | | |
| Brown Gravy | 1 oz. | 350 ° 200 ° | 2 | 18 gal. | 2300 | 35 gal. | 4500 |
| Cream Sauces | 2 oz. | 250 ° 175 ° | 1 | 18 gal. | 1150 | 35 gal. | 2250 |
| Cream Soups | 6 oz. | 200 ° | 1 | 18 gal. | 375 | 35 gal. | 725 |
| French Onion Soup | 6 oz. | 225 ° | 1 | 18 gal. | 350 | 35 gal. | 700 |
| Meat Sauce | 4 oz. | 350 ° 200 ° | 1 | 18 gal. | 575 | 35 gal. | 1100 |
| MISCELLANEOUS | | | | | | | |
| Grilled Cheese | 1 sand | 400 ° | 8 | 35 sand | 35 | 40 sand | 50 |
| Macaroni & Cheese | 8 oz. | 200 ° | 2 | 18 gal. | 300 | 35 gal. | 525 |
| Rice | 4 oz. | 350 ° 225 ° | 1 | 20 lb.raw | 320 | 40 lb. | 650 |
| Spaghetti | 4 oz. | 350 ° 225 ° | 2 | 8 lb. | 200 | 12 lb. | 300 |
| MEAT & POULTRY | | | | | | | |
| Beef | | | | | | | |
| American Chop Suey | 6 oz. | 400 ° 225 ° | 2 | 18 gal. | 350 | 35 gal. | 700 |
| Beef Stew | 8 oz. | 300 ° | -- | 18 gal. | 280 | 35 gal. | 560 |
| Corn Beef Hash | 5 oz. | 400 ° | 5 | 16 lb. | 50 | 25 lb. | 75 |
| Cheeseburger | 3 oz. | 300 ° | 12 | 7 lb. | 35 | 10 lb. | 50 |
| Hamburger | 3 oz. | 300 ° | 15 | 7 lb. | 35 | 10 lb. | 50 |
| Meatballs | 1 oz. | 400 ° 225 ° | 3 | 12 lb. | 65 | 18 lb. | 100 |
| Pot Roast | 2 oz. | 350 ° 200 ° | -- | 120 lb. | 500 | 180 lb. | 750 |
| Salisbury Steak | 5 oz. | 400 ° | 3 | 16 lb. | 50 | 24 lb. | 75 |
| Sirloin Steak | 6 oz. | 400 ° | 5 | 15 lb. | 40 | 22 1/2 lb. | 60 |
| Swiss Steak | 4 oz. | 300 ° 200 ° | 1 | 25 lb. | 100 | 40 lb. | 160 |
| Chicken | | | | | | | |
| Pan-Fired | 2 1/4's | 350 | 3 | 50 Pieces | 25 | 80 Pieces | 40 |
| Whole | 2 oz. | 350 200 ° | -- | 16-5 lb. | 200 | 24-5 lb. | 265 |
| Frankfurters | | | | | | | |
| Grilled | 2 oz. | 300 ° | 8 | 22 lb. | 176 | 33 lb. | 264 |
| Boiled | 2 oz. | 250 ° | 12 | 16 lb. | 128 | 25 lb. | 200 |
| Ham Steak | 3 oz. | 400 ° | 8 | 10 lb. | 50 | 15 lb. | 75 |
| Pork Chops | 5 oz. | 400 ° | 4 | 15 lb. | 50 | 25 lb. | 75 |
| Sausage Links | 3 links | 350 ° | 7 | 30 lb. | 120 | 45 lb. | 180 |

TEST KITCHEN BULLETIN

| ITEM | PORTION SIZE | THERMOSTAT SETTING | | BATCHES PER HOUR | 30 Gallon PER LOAD | | 40 Gallon PER LOAD | |
|--------------------|-----------------|-----------------------|-------|------------------------|-----------------------|-------|-----------------------|-------|
| | | | | | QTY. | YIELD | QTY. | YIELD |
| MEAT & POULTRY | | | | | | | | |
| Turkey | | | | | | | | |
| Off Carcass | 2 oz. | 400 ° | 200 ° | -- | 3-26-30 lb. | 200 | 4-26-30 lb. | 275 |
| On Carcass | 2 oz. | 400 ° | 200 ° | -- | 4-16-20 lb. | 175 | 6-16-20 lb. | 265 |
| VEGETABLES | | | | | | | | |
| Canned | oz. | 400 ° | | 6 | 30 lb. | 125 | 45 lb. | 200 |
| Fresh | | | | | | | | |
| Beans | oz. | 400 ° | | 3 | 25 lb. | 125 | 50 lb. | 250 |
| Beets | oz. | 400 ° | | 1 | 30 lb. | 125 | 60 lb. | 300 |
| Broccoli | oz. | 400 ° | | 3 | 25 lb. | 125 | 40 lb. | 200 |
| Cabbage | oz. | 400 ° | | 5 | 20 lb. | 80 | 30 lb. | 125 |
| Carrots | oz. | 400 ° | | 2 | 35 lb. | 150 | 70 lb. | 300 |
| Cauliflower | oz. | 250 ° | | 5 | 15 lb. | 75 | 25 lb. | 125 |
| Corn | ear | 400 ° | | 8 | 50 ears | 50 | 75 ears | 75 |
| Potatoes | oz. | 400 ° | | 2 | 40 lb. | 200 | 60 lb. | 300 |
| Spinach | oz. | 225 ° | | 10 | 6 lb. | 25 | 9 lb. | 35 |
| Turnips | oz. | 400 ° | | 2 | 20 lb. | 100 | 30 lb. | 150 |
| Frozen | | | | | | | | |
| Beans | oz. | 400 ° | | 6 | 15 lb. | 60 | 22 1/2 lb. | 90 |
| Lima Beans | oz. | 250 ° | | 4 | 15 lb. | 60 | 22 1/2 lb. | 90 |
| Broccoli | oz. | 400 ° | | 8 | 12 lb. | 50 | 18 lb. | 75 |
| Sliced Carrots | oz. | 250 ° | | 6 | 15 lb. | 60 | 22 1/2 lb. | 90 |
| Baby Carrots | oz. | 250 | | 3 | 15 lb. | 50 | 22 1/2 lb. | 90 |
| Corn | oz. | 250 ° | | 18 | 15 lb. | 50 | 22 1/2 lb. | 90 |
| Baby Onions | oz. | 250 ° | | 7 | 15 lb. | 50 | 22 1/2 lb. | 90 |
| Peas | oz. | 400 ° | | 10 | 15 lb. | 75 | 22 1/2 lb. | 110 |
| Spinach | oz. | 400 ° | | 3 | 15 lb. | 75 | 22 1/2 lb. | 110 |
| DESSERT ITEMS | | | | | | | | |
| Butterscotch Sauce | 1 oz. | 200 ° | | 1 | 18 gal. | 2330 | 35 gal. | 4500 |
| Cherry Cobbler | 3 oz. | 200 ° | | 1 | 19 gal. | 750 | 36 gal. | 1500 |
| Chocolate Sauce | 1 oz. | 200 ° | | 1 | 20 gal. | 2300 | 37 gal. | 4500 |
| Cornstarch Pudding | 4 oz. | 200 ° | | 1 | 21 gal. | 575 | 38 gal. | 1100 |
| Fruit Gelatin | 3 oz. | 250 ° | | 2 | 22 gal. | 750 | 39 gal. | 1500 |

TROUBLE-SHOOTING

REPLACEMENT OF TEMPERATURE CONTROL:

1. Place circuit breaker in off position.
2. Remove skirted dial knob by loosening two set screws in the knob. (Use a 5/64 Hex key to loosen screws).
3. Tilt control box up by first removing two pan head screws in the lower front of the console. Use the prop up arm located inside, in the rear vertical column, to keep the console cover tilted open.
4. Disconnect all wire leads from temperature control.

NOTE: Leads should be marked appropriately to facilitate re-installation.

5. Remove temperature control by removing two (2) pan head screws from side of control box.
6. Install new temperature control and reverse steps 1 - 5.

ADJUSTMENT OF INTERLOCK SWITCH:

1. Tilt skillet pan all the way in the downright position.
2. Place circuit breaker in off position.
3. Tilt control box up by first removing two pan head screws in the lower front of the console. Use the prop arm located inside, in the rear vertical column, to keep the console cover tilted open.
4. To reduce the angle where the switch disengages when the pan is tilted, use a pair of heavy duty needle nose pliers and lightly bend the tilt tab on the trunnion up. To increase the angle, bend the tilt-tab down. Test by tilting the pan and checking at what angle the switch clicks. The switch should click off at approximately 10° tilt of the pan from the horizontal position.
5. Close and fasten the control console by tightening the two screws at the lower front of the box.
6. Place circuit breaker in on position.

TROUBLE-SHOOTING GUIDE

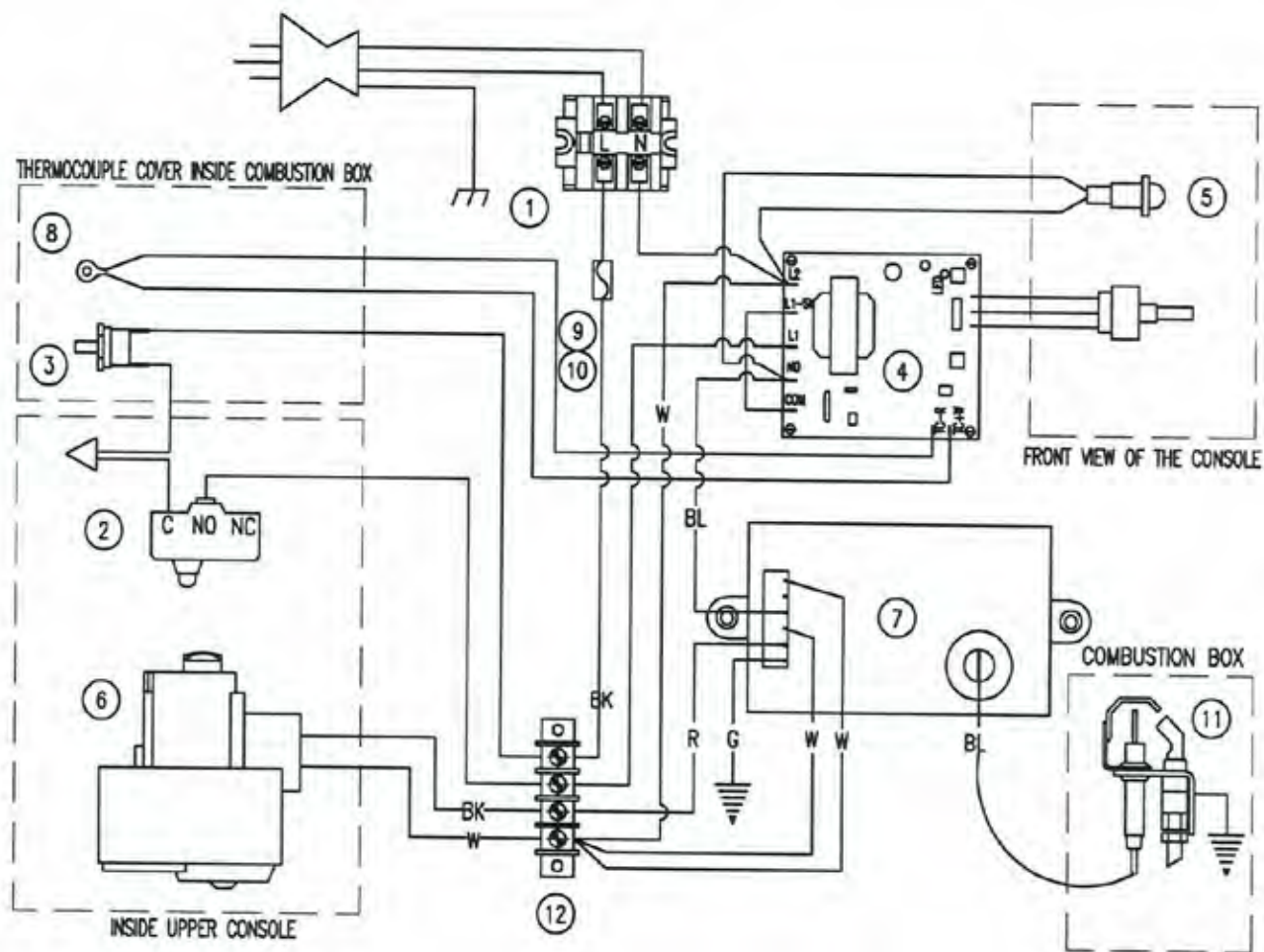
| PROBLEM | PROBABLE CAUSE | REMEDY |
|-------------------------|---|---|
| Uneven or poor heating. | a. Temperature control out of calibration or defective. b. Unit attached to wrong gas supply. c. Combination gas control set to wrong pressure. | a. Replace temperature control. b. Compare to specifications on data plate. c. Adjust manifold pressure to equal that listed on data plate. |
| Signal light out. | a. Burnt out bulb. b. Broken temperature control. c. Loose electrical connection. | a. Replace. b. Replace. c. Repair. |
| Unit fails to heat. | a. Circuit breaker is off. b. Malfunction of interlock switch. c. Broken ignition module d. Broken ignitor/sensor. | a. Reset circuit breaker. b. Adjust or replace. c. Replace. d. Replace. |
| No 110 Volts output. | a. Defective temperature control. b. Broken temperature sensor. | a. Replace. b. Replace. |
| No gas to unit. | a. Defective gas valve. | a. Replace. |

MAINTENANCE

DAILY CLEANING:

1. The skillet should be cleaned daily.
2. Wash the skillet with a mild detergent and hot water. If food is stuck to the surface of the skillet pan, soak it and use a little heat or loosen the food. Then, wash with clean water and dry.
3. Be sure to wash under the skillet cover and rinse with clean water.
4. Check the skillet pouring lip corners to be sure they are clean. Also, wash around the exterior of the skillet. Rinse with clean water and air dry.

WIRING



| ITEM NO. | PART NO. | DESCRIPTION | QTY. |
|----------|----------|-------------------------------|------|
| 1A | 10-6963 | TERMINAL BLOCK | 2 |
| 1B | 10-6962 | TERMINAL BLOCK END | 1 |
| 2 | 97-6154 | INTERLOCK SWITCH | 1 |
| 3 | 97-6155 | THERMOSTAT, HIGH LIMIT SAFETY | 1 |
| 4 | 97-6030 | TEMPERATURE CONTROL | 1 |
| 5 | 97-5782 | TEMPERATURE PILOT (RED) | 1 |
| *6 | 97-5808 | GAS VALVE , NATURAL GAS | 1 |
| *6 | 97-5809 | GAS VALVE, PROPANE GAS | 1 |
| 7 | 97-5960 | DSI IGNITION MODULE | 1 |
| 8 | 97-6289 | THERMOCOUPLE | 1 |
| 9 | 97-5476 | FUSE, 3A, 250V | 2 |
| 10 | 97-5864 | FUSE HOLDER | 2 |
| *11 | 97-6157 | PILOT ASSEMBLY, NATURAL | 1 |
| *11 | 97-6158 | PILOT ASSEMBLY, PROPANE | 1 |
| 12 | 97-6159 | 4 POLE TERMINAL BLOCK | 1 |

* SELECT AS REQUIRED FOR GAS TYPE OR MODEL.

PARTS

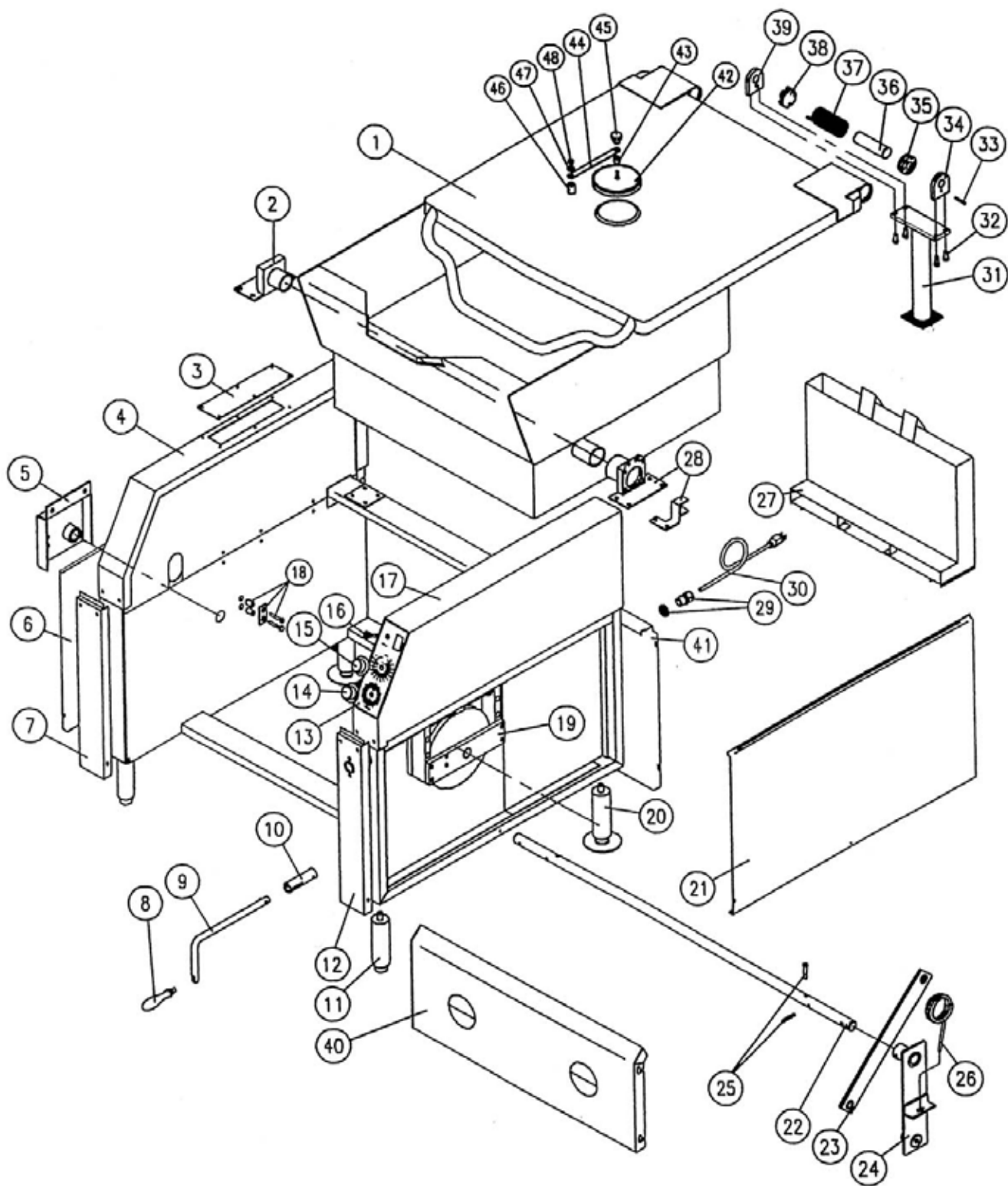


FIGURE NO. 1 Main Assembly

PARTS

| ITEM NO. | PART NO. | FIGURE NO. 1 DESCRIPTION | 30 GAL. | 40 GAL. |
|----------|----------|--|---------|---------|
| 1 | 98-6031 | PAN COVER ASSEMBLY | 1 | |
| | 98-6032 | PAN COVER ASSEMBLY | | 1 |
| 2 | 98-6033 | LEFT HAND TRUNNION ASSEMBLY | 1 | 1 |
| 3** | 98-6034 | FAUCET COVER PLATE | 1 | 1 |
| | ~NPN~ | FAUCET MOUNTING PLATE PANTRY FAUCET | 1 | 1 |
| | ~NPN~ | FAUCET MOUNTING PLATE DOUBLE FAUCET | 1 | 1 |
| 4 | 98-6035 | LEFT HAND CONSOLE TOP COVER | 1 | 1 |
| 5 | 98-6036 | LEFT HAND CONSOLE TILT SHAFT BEARING BRACKET | 1 | 1 |
| 6 | 98-6037 | LOWER CONSOLE SIDE PANEL LEFT HAND | 1 | 1 |
| 7 | 98-6038 | LEFT HAND CONSOLE FRONT COVER | 1 | 1 |
| 8 | 97-5577 | HANDLE | 1 | 1 |
| 9 | 98-6040 | CRANK HANDLE | 1 | 1 |
| 10 | 98-6041 | INPUT SHAFT ADAPTOR | 1 | 1 |
| 11 | 98-6042 | ADJUSTABLE BULLET FOOT | 2 | 2 |
| 12 | 98-6043 | RIGHT HAND FRONT CONSOLE COVER | 1 | 1 |
| 13 | 98-6044 | DECAL | 1 | 1 |
| 14 | 98-6045 | TIMER COMPLETE WITH DIAL | 1 | 1 |
| 15 | 98-6046 | THERMOSTAT DIAL | 1 | 1 |
| * | 98-6047 | ROTARY SHAFT SEAL | 1 | 1 |
| 16 | 98-6048 | PILOT LIGHT - TEMPERATURE, RED | 1 | 1 |
| 17 | 98-6049 | RIGHT HAND CONSOLE TOP COVER | 1 | 1 |
| 18 | 98-6050 | SPRING RETAINER | 2 | 2 |
| * | 98-6051 | Hx. BOLT 3/8-16 x 1 1/2 | 4 | 4 |
| * | 98-6052 | WASHER 3/8 STAINLESS STEEL | 4 | 4 |
| * | 98-6053 | SPACER | 4 | 4 |
| 19 | 98-6054 | GEAR BOX ASSEMBLY | 1 | 1 |
| 20 | 98-6055 | FLANGE ADJUSTABLE FOOT | 2 | 2 |
| 21 | 98-6056 | LOWER CONSOLE SIDE PANEL RIGHT HAND | 1 | 1 |
| 22 | 98-6057 | TILT SHAFT | 1 | |
| | 98-6058 | TILT SHAFT | | 1 |
| 23 | 98-6059 | TILT ARM EXTENSION | 2 | 2 |
| 24 | 98-6060 | ARM, LIFT | 2 | 2 |
| 25 | 98-6061 | ROLL PIN, 1/4 x 1 1/2 STAINLESS STEEL | 2 | 2 |
| | 98-6062 | Hx. BOLT 1/4 x 1 1/2 STAINLESS STEEL | 2 | 2 |
| 26 | ~NPN~ | SPRING, RIGHT HAND | 1 | 1 |
| | ~NPN~ | SPRING, LEFT HAND | 1 | 1 |
| 27 | 98-6065 | FLUE ASSEMBLY | 1 | |
| | 98-6066 | FLUE ASSEMBLY | | 1 |

PARTS

| ITEM NO. | PART NO. | FIGURE NO. 1 DESCRIPTION | 30 GAL. | 40 GAL. |
|----------|----------|--|------------|------------|
| 27 | 98-6065 | FLUE ASSEMBLY | 1 | |
| | 98-6066 | FLUE ASSEMBLY | | 1 |
| 28 | 98-6067 | RIGHT HAND TRUNNION ASSEMBLY | 1 | 1 |
| | 98-6068 | SWIVEL BRACKET | 1 | 1 |
| 29 | 98-6069 | LIQUID TIGHT CONNECTOR 1/2" | 1 | 1 |
| | 98-6070 | LOCKNUT 1/2" | 1 | 1 |
| 30 | 97-5702 | CORD SET | 1 | 1 |
| 31 | 98-6072 | POST ASSEMBLY | 2 | 2 |
| 32 | 97-5545 | CAP SCREW 5/16-18 x 3/4 STAINLESS STEEL | 8 | 8 |
| 33 | 97-5352 | LOCK PIN | 2 | 2 |
| 34 | 97-5343 | END LOCK PIN | 2 | 2 |
| 35 | 98-6073 | STATIONARY DISC | 2 | 2 |
| 36 | 98-6074 | CORE | 2 | 2 |
| 37 | 97-5160 | SPRING | 2 | 2 |
| 38 | 98-6076 | ROTARY DISC | 2 | 2 |
| 39 | 97-5356 | END STOP PLATE | 2 | 2 |
| 40 | 98-6078 | FRONT COVER PANEL (MODULAR UNITS) | 1 | |
| | 98-6079 | FRONT COVER PANEL (MODULAR UNITS) | | 1 |
| 41 | 98-6080 | BACK COVER PANEL (MODULAR UNITS) | 1 | 1 |
| | 98-6081 | BACK COVER PANEL (MODULAR UNITS) | | 1 |
| 42 | 98-6082 | VENT COVER | 1 | 1 |
| 43 | 98-6083 | SWIVEL SPACER | 1 | 1 |
| 44 | ~NPN~ | ARM | 1 | 1 |
| 45 | 98-6084 | KNOB | 1 | 1 |
| 46 | 98-6085 | SWIVEL BASE | 1 | 1 |
| 47 | 98-6086 | WASHER 1/4 STAINLESS STEEL | 1 | 1 |
| 48 | 98-6087 | Hx. Hd. SCREW 1/4-20 x 3/8 STAINLESS STEEL | 1 | 1 |
| 49* | 98-6013 | POUR LIP STRAINER | 1 | 1 |

* NOT SHOWN

** SELECT AS REQUIRED

PARTS

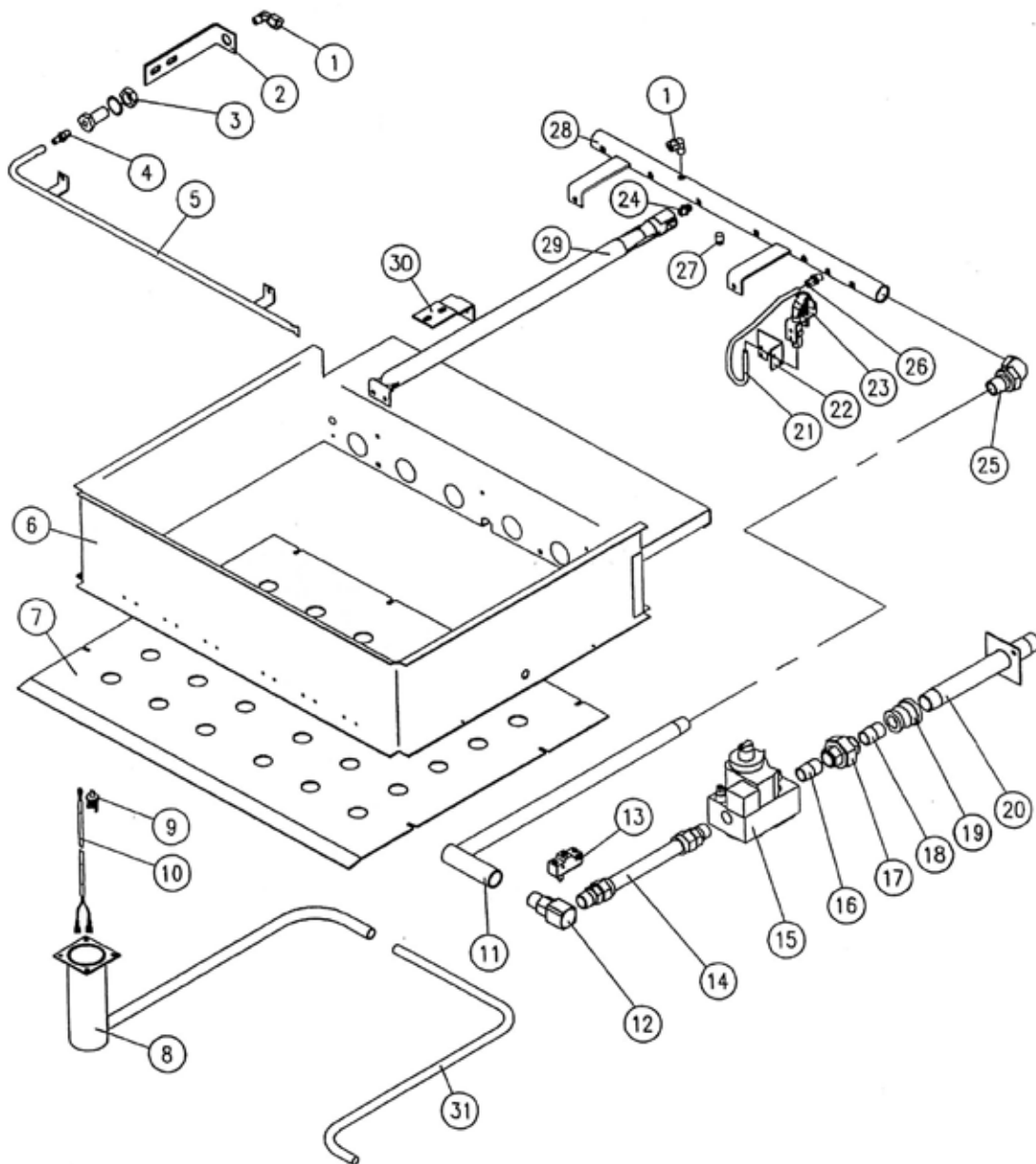


FIGURE NO. 2 Gas and Electric Connections

| ITEM NO. | PART NO. | FIGURE NO. 2 DESCRIPTION | 30 GAL. | 40 GAL. |
|----------|----------|------------------------------------|---------|---------|
| 1 | 98-6089 | ELBOW 1/4 C x 1/8 MPT | 2 | 2 |
| 2 | 98-6090 | LIGHTER TUBE BRACKET | 1 | 1 |
| 3 | 98-6091 | BULK HEAD | 1 | 1 |
| 4** | 98-6092 | LIGHTER TUBE ORIFICE - NATURAL #56 | 1 | 1 |
| | 98-6093 | LIGHTER TUBE ORIFICE - PROPANE #72 | 1 | 1 |
| 5 | 98-6094 | LIGHTER TUBE | 1 | |
| | 98-6095 | LIGHTER TUBE | | 1 |

PARTS

| ITEM NO. | PART NO. | FIGURE NO. 2 DESCRIPTION | 30 GAL. | 40 GAL. |
|----------|----------|---|------------|------------|
| 6 | 98-6096 | BURNER BASKET ASSEMBLY | 1 | |
| | 98-6097 | BURNER BASKET ASSEMBLY | | 1 |
| 7 | 98-6098 | BOTTOM COVER | 1 | |
| | 98-6099 | BOTTOM COVER | | 1 |
| 8 | 98-6100 | HIGH LIMIT THERMOCOUPLE COVER | 1 | 1 |
| 9 | 98-6101 | HIGH LIMIT SAFETY THERMOSTAT | 1 | 1 |
| 10 | 98-6102 | THERMOCOUPLE | 1 | 1 |
| 11 | 98-6103 | GAS SUPPLY PIPE ASSEMBLY | 1 | 1 |
| 12 | 98-6104 | SWIVEL | 1 | 1 |
| 13 | 97-5414 | INTERLOCK SWITCH | 1 | 1 |
| 14 | 98-6030 | CORRUGATED FLEX TUBE 1/2 x 7 1/2 | 1 | 1 |
| 15** | 98-6107 | COMBINATION GAS CONTROL - NATURAL (97-5808) | 1 | 1 |
| | 98-6108 | COMBINATION GAS CONTROL - PROPANE (97-5809) | 1 | 1 |
| 16 | 98-6109 | CLOSE NIPPLE 1/2" | 1 | 1 |
| 17 | 97-5490 | GROUND JOINT UNION 1/2" | 1 | 1 |
| 18 | 98-6111 | NIPPLE 1/2 x 1 1/4" | 1 | 1 |
| 19 | 98-6112 | REDUCER BUSHING 3/4 x 1/2" | 1 | 1 |
| 20 | 98-6113 | GAS SUPPLY PIPE ASSEMBLY | 1 | 1 |
| 21 | 98-6114 | PILOT TUBE | 1 | 1 |
| 22 | 98-6115 | PILOT BRACKET | 1 | 1 |
| 23** | 97-6157 | PILOT BURNER ASSEMBLY - NATURAL | 1 | 1 |
| | 97-6158 | PILOT BURNER ASSEMBLY - PROPANE | 1 | 1 |
| 24** | 98-6118 | BURNER ORIFICE #48 - NATURAL | 6 | |
| | 98-6119 | BURNER ORIFICE #56 - PROPANE | 6 | |
| | 98-6120 | BURNER ORIFICE #51 - NATURAL | | 10 |
| | 98-6121 | BURNER ORIFICE #59 - PROPANE | | 10 |
| 25 | 98-6122 | UNION ELBOW | 1 | 1 |
| 26 | 98-6123 | CONNECTOR 1/4 C x 1/8 MPT | 1 | 1 |
| 27 | 98-6124 | SQUARE Hd. PIPE PLUG 1/8" | 1 | 1 |
| 28 | 98-6125 | MANIFOLD ASSEMBLY | 1 | |
| | 98-6126 | MANIFOLD ASSEMBLY | | 1 |
| 29 | 98-6127 | BURNER | 6 | 10 |
| 30 | 98-6128 | BURNER BOX MOUNTING BRACKET | 2 | 2 |
| 31 | 98-6129 | THERMOCOUPLE HIGH LIMIT WIRE TUBE | 1 | |
| | 98-6130 | THERMOCOUPLE HIGH LIMIT WIRE TUBE | | 1 |

** SELECT AS REQUIRED

PARTS

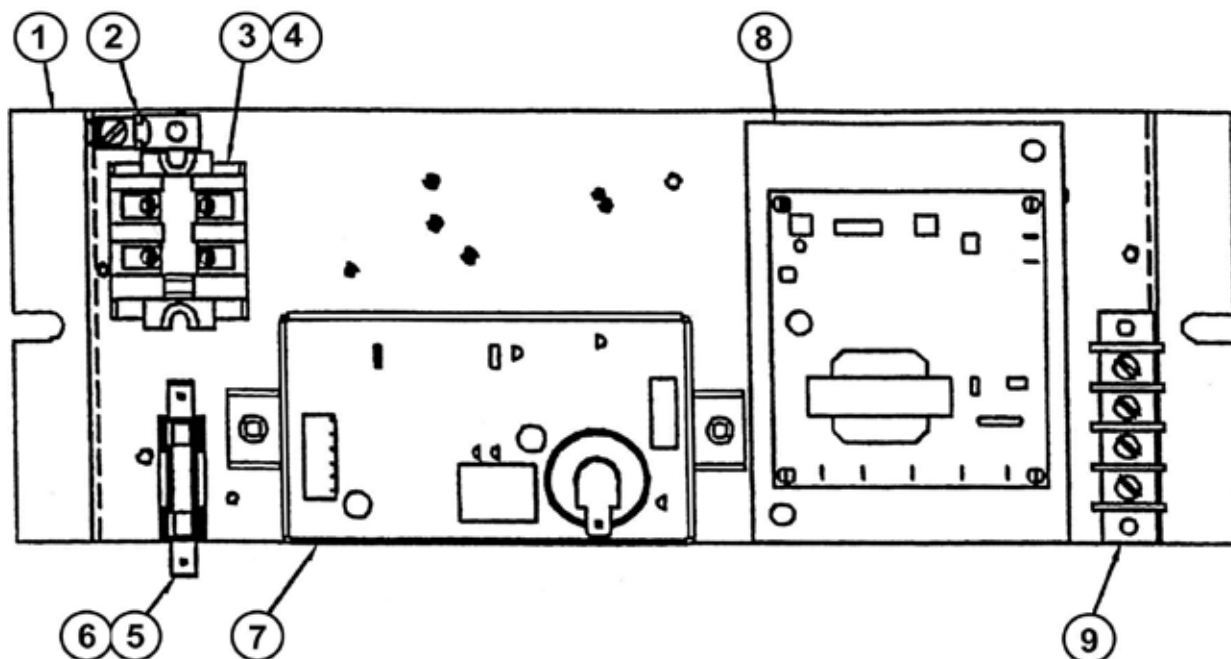


FIGURE NO. 3 Control Circuit Components

| ITEM NO. | PART NO. | FIGURE NO. 3 DESCRIPTION | QTY. |
|----------|----------|--|------|
| 1 | 98-6131 | COMPONENT MOUNTING BOARD | 1 |
| 2 | 97-5441 | GROUND LUG | 1 |
| 3 | 10-6963 | TERMINAL BLOCK SECTION | 2 |
| 4 | 10-6962 | END SECTION | 1 |
| 5 | 98-6132 | FUSE HOLDER | 1 |
| 6** | 98-6133 | FUSE, 3A, 250V (120V UNIT) | 1 |
| | 98-6134 | FUSE, 1A, 250V (220V UNIT) | 1 |
| 7 | 98-6135 | IGNITION MODULE | 1 |
| 8 | 98-6136 | TEMPERATURE CONTROL | 1 |
| 9 | 98-6137 | TERMINAL BLOCK, 4 POLE | 1 |
| 10* | 98-6138 | TRANSFORMER, 220-120V, 100VA (220V UNIT) | 1 |

** SELECT AS REQUIRED

PARTS

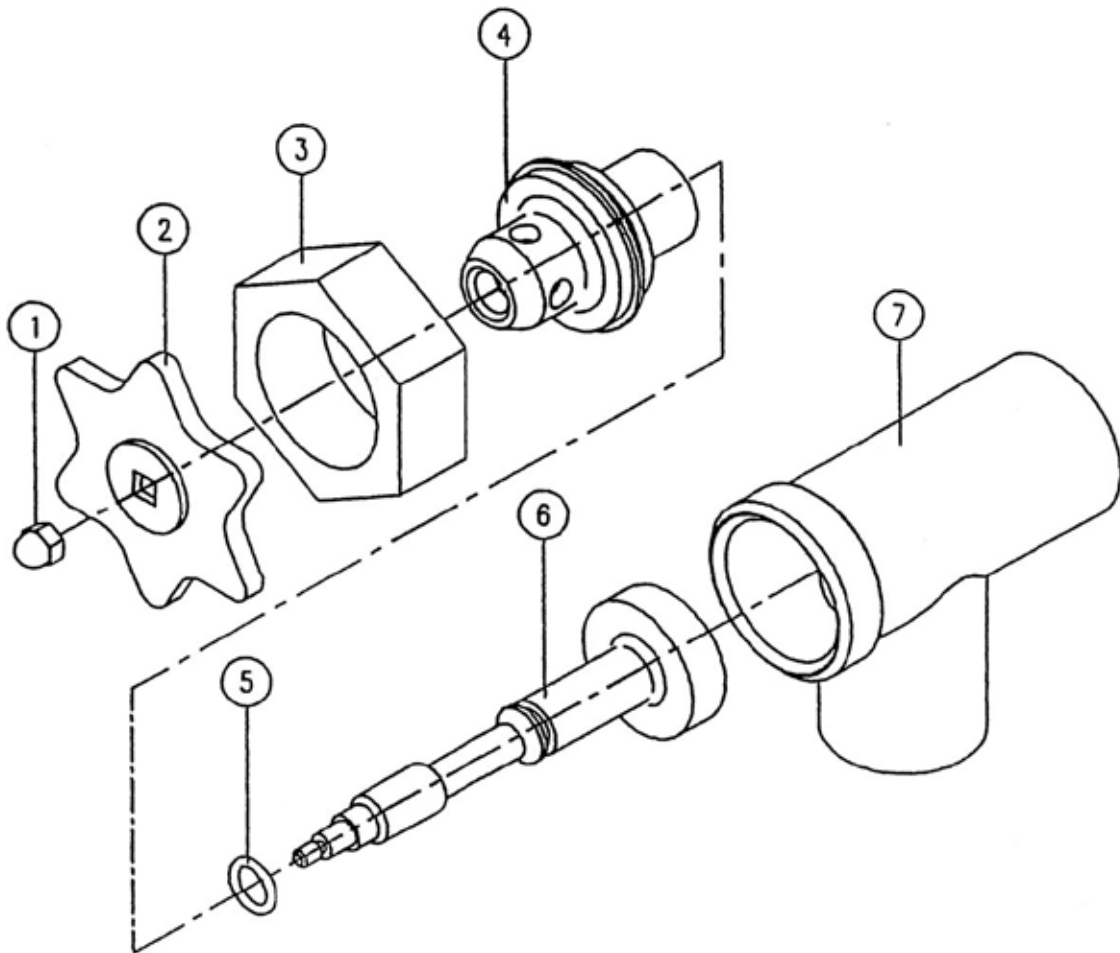


FIGURE NO. 4 Draw-Off Valve Assembly

| ITEM NO. | PART NO. | FIGURE NO. 4 DESCRIPTION | QTY. |
|----------|----------|------------------------------|------|
| | 98-6014 | 2" DRAW-OFF VALVE ASSEMBLY | |
| 1 | 98-6155 | ACORN NUT 10-24 UNC | 1 |
| 2 | 97-5566 | ACORN NUT 10-24 UNC | 1 |
| | 97-5413 | HANDLE STAINLESS STEEL | 1 |
| 3 | 97-5069 | GLAND NUT | 1 |
| 4 | 97-5072 | BONNET | 1 |
| 5 | 97-5078 | "O" RING | 1 |
| 6 | 97-5075 | STEM ASSEMBLY | 1 |
| 7 | 98-6156 | VALVE BODY | 1 |
| 8* | 98-6157 | DRAW-OFF STRAINER (OPTIONAL) | 1 |

* NOT SHOWN

PARTS

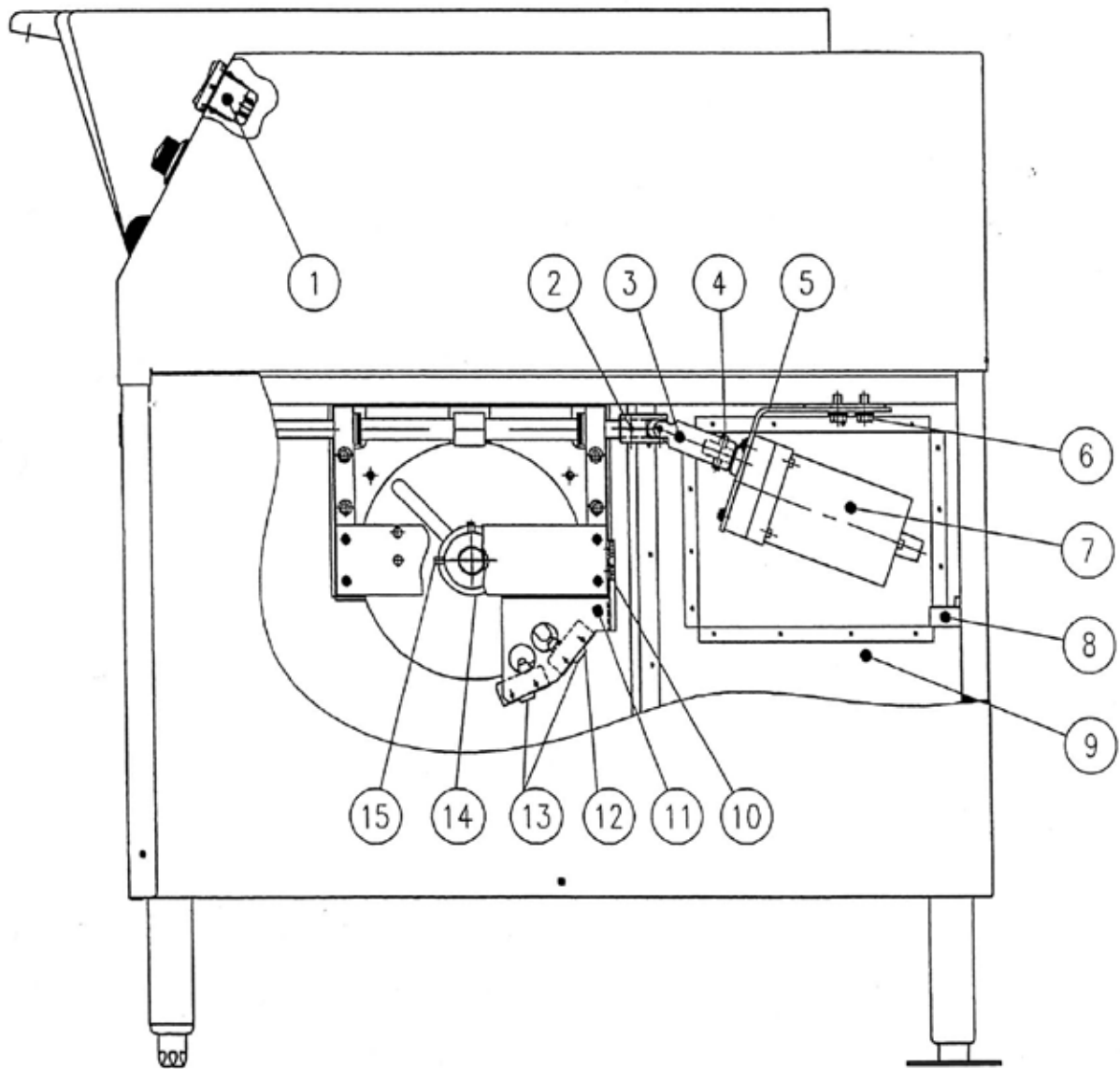


FIGURE NO. 5 Optional Motor Tilt Components (LX Models)

PARTS

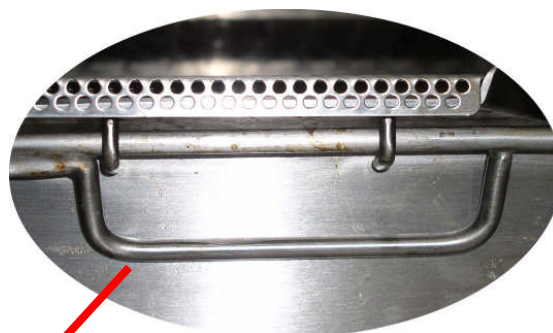
| ITEM NO. | PART NO. | FIGURE NO. 5 DESCRIPTION | QTY. |
|----------|----------|--|------|
| 1 | 98-6139 | TILT SWITCH | 1 |
| 2 | 97-5793 | SPRING TENSION PIN 3/16 x 1 1/4 LONG | 1 |
| 3 | 98-6140 | UNIVERSAL JOINT | 1 |
| 4 | 98-6141 | SET SCREW 5/16-18 x 3/8 | 2 |
| 5 | 98-6142 | MOTOR MOUNTING BRACKET | 1 |
| 6** | 97-5595 | Hx. SCREW 5/16-18 x 3/4 | 3 |
| | ~NPN~ | FLAT WASHER 5/16 | 3 |
| | ~NPN~ | LOCK WASHER 5/16 | 3 |
| 7** | 98-6143 | MOTOR 1/20 HP 115V | 1 |
| | 98-6144 | MOTOR 1/20 HP 230V | 1 |
| 8** | 98-6145 | CAPACITOR 370 VAC 7.5 MFD (120V MOTOR) | 1 |
| | 98-6146 | CAPACITOR 440 VAC 2.0 MFD (230V MOTOR) | 1 |
| 9 | 98-6147 | MOTOR ACCESS PANEL | 1 |
| 10 | 98-6148 | Hx. BOLT 1/4-20 x 1/2 | 2 |
| 11 | 98-6149 | SWITCH MOUNTING BRACKET | 1 |
| 12 | 98-6150 | SCREW 6-32 x 1 | 4 |
| 13 | 97-5414 | LIMIT SWITCH | 2 |
| 14 | 98-6151 | CAM ACTUATOR | 1 |
| 15 | 98-6152 | SET SCREW 1/4-20 x 1/2" | 2 |
| 16** | 98-6153 | FUSE 3/4 AMP TIME DELAY (120V MOTOR) | 1 |
| | 98-6154 | FUSE 0.3A TIME DELAY 250V (230V MOTOR) | 1 |
| | 98-6132 | FUSE HOLDER | 1 |

** SELECT AS REQUIRED

UniVerse Plus Tilting Skillet

Pan Support 98-6006

***The Correct Positioning of the
Skillet Pan Support***



UniVerse Plus Tilting Skillet

Pan Support 98-6006

The Incorrect Positioning of the Skillet Pan Support

